

CRF Errors Corrected by the STIC Systems Branch

OIPE
3/11
3/14/2002
#2/108

Serial Number: 10/079,042

CRF Processing Date: 3/14/2002
Edited by: [Signature]
Verified by: [Signature] (STIC staff)

ENTERED

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was wrapped down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: _____
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: _____
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: _____
- ☒ Deleted: ☒ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____
- ☐ Inserted mandatory headings, specifically: _____
- ☐ Corrected an obvious error in the response, specifically: _____
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: _____
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☐ Other: _____

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

#2



RAW SEQUENCE LISTING

DATE: 03/14/2002

PATENT APPLICATION: US/10/079,042

TIME: 13:49:55

Input Set : A:\Pto.amc

Output Set: N:\CRF3\03142002\J079042.raw

p. 6

5 <110> APPLICANT: Messier, Walter
 9 <120> TITLE OF INVENTION: Methods to Identify Evolutionarily Significant Changes in Polynucleotide
 10 and Polypeptide Sequences in Domesticated Plants
 14 <130> FILE REFERENCE: GENO200.1/CIP
 C--> 18 <140> CURRENT APPLICATION NUMBER: US/10/079,042
 C--> 18 <141> CURRENT FILING DATE: 2002-02-19
 18 <150> PRIOR APPLICATION NUMBER: US 09/240,915
 20 <151> PRIOR FILING DATE: 1999-01-29
 24 <150> PRIOR APPLICATION NUMBER: US 60/349,088
 26 <151> PRIOR FILING DATE: 2002-01-16
 30 <150> PRIOR APPLICATION NUMBER: US 09/368,810
 32 <151> PRIOR FILING DATE: 1999-08-03
 36 <150> PRIOR APPLICATION NUMBER: US 09/875,666
 38 <151> PRIOR FILING DATE: 2001-06-06
 42 <150> PRIOR APPLICATION NUMBER: US 60/315,595
 44 <151> PRIOR FILING DATE: 2001-08-29
 48 <160> NUMBER OF SEQ ID NOS: 91
 52 <170> SOFTWARE: PatentIn version 3.1
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 71 cacgtgccgg atcatttgct ctgacctgtt ggttttgatc ggatctgttg gttgtgcgtg 180
 73 tgtgatttgg ggatcgcaag tgcggggaag ctaacctttg catggataac ttgagatttg 240
 75 tgaggccgcg ctctcgaccag atcggtcgcc aatcttttag tggctgaccg tggaaagagg 300
 77 atattactga ccttcggttt gctaattttg gttgtgccgt tgaatctgaa ataaccagaa 360
 79 tagtcatggg gaaaaaagtc tgatctggaa ggttcgaatt acatttctat atattgttgt 420
 81 gctcccagac gatggttgca agaaatcact catgctggat aaaattgtgg atgtaagagt 480
 83 ctgcagtcgt taaaatctgg aaacagcaca ttttgccgta gtaaatttga atccatgttg 540
 85 ctgtctcgtt attggtgtgt tacgagtaac ctgtgtgttg ttatctccgc ttggactaga 600
 87 ttccaagtaa tccagtgcct tcatgacctg caaattctat gcctatgaag taacatgaac 660
 89 agtttgtatg tatgtattct gttgatgcat acttgcatga tttgtgagat gtacatgttg 720
 91 tggtaaaatt ttgcattcac catatagaaa tagtaactga ctatccttgt ttagttcgaa 780
 93 aactactgca ggtttagtta ttctctgttg ccaagagtgc ttgttatgat tgtaagggtt 840
 95 acagttctgt gactaaccat gtaacaaata tattaaggat tatcaaatta ttctatgtga 900
 97 agtgccgtg ccctaattgt gttatcttct gtaactgata gcacaacatt tgtttcctgc 960
 99 tgtgtgcttg tgtaaaattg tacttcatca ttactatata tttcaaagaa aattctgcat 1020
 101 tgcattcccg tcgtccgttc taaatcagaa ctgacgattg ctctggtggc tgaagctcca 1080
 103 gaaagaaagg gaaaaggctg aaaagaagaa agagaaaagg agtgacagga aagctcttcc 1140
 105 acatggtgag atatccaagc attcaaagcg aaccaccac aagaagagaa aacatgaaga 1200

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111 ctctccagag agttcacagg acagcagcaa gagaagaaag gttgtgttac ccagtcctag 1380
113 ccaagctaag aatgggtgagg ccctttcttg catttgtctt ctttttagctg gtgatgttga 1440
115 attgggtttga cttatcctga attatcatct tgcaggtaac atccttcgaa taaagataag 1500
117 aagagatcaa gattcttcag cttccctttc ggagaaatct aatgttgtac aaacaccagt 1560
119 tcatcaaagt ggatcagttt catctctgcc aagtaagaaa aactcaatgc aaccacacaa 1620
121 caccgaaatg atggtgagaa cagcatcaac ccagcagcaa agcatcaaag gtgattttca 1680
123 agcagtaccg aaacaaggtg tgccaacccc agcaaaagtc atgccaagag tcgatgttcc 1740
125 tccatctatg agggcatcaa aggaaaggat tggccttcgt cctgcagaga tgttggccaa 1800
127 tgttggtcct tcacctcca aggcataaaca gattgtcaat cctgcagctg ctaagggttac 1860
129 acaaagagtt gatcctccac ctgccaaggc atctcagaga attgatcctc tgttgccatc 1920
131 caagggtcat atagatgcta ctgatcttt tacgaaggtc tcccagacag agatcaagcc 1980
133 ggaagtacag cccccaattc tgaagggtgcc tgtggctatg cctaccatca atcgtcagca 2040
135 gattgacacc tcgcagccca aagaagagcc ttgctcctct ggcaggaatg ctgaagctgc 2100
137 ttcagtatca gtagagaagc agtccaagtc agatcgcaaa aagagccgca aggctgagaa 2160
139 gaaagagaag aagttcaaag atttatttgt tacctgggat cctccgtcta tggaaatgga 2220
141 tgatatggat ctcggggacc aggattggct gcttgatagt acgaggaaac ctgatgctgg 2280
143 cattggcaac tgcagagaaa ttgttgatcc acttacttct caatcagcag agcagttctc 2340
145 attgcagcct agggcgattc atttaccaga ccttcatgtc tatcagttgc catatgtggt 2400
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162 <221> NAME/KEY: CDS
164 <222> LOCATION: (1)..(1344)
166 <223> OTHER INFORMATION:
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175 gtg gtg gcc gtg gcc gcg gcc gaa gcg cag gcg acc act aag ctc cag 96
176 Val Val Ala Val Ala Ala Ala Glu Ala Gln Ala Thr Thr Lys Leu Gln
177 20 25 30
179 aaa gaa agg gaa aag gct gaa aag aag aaa gag aaa agg agt gac agg 144
180 Lys Glu Arg Glu Lys Ala Glu Lys Lys Lys Glu Lys Arg Ser Asp Arg
181 35 40 45
183 aaa gct ctt cca cat ggt gag ata tcc aag cat tca aag cga acc cac 192
184 Lys Ala Leu Pro His Gly Glu Ile Ser Lys His Ser Lys Arg Thr His
185 50 55 60
187 cac aag aag aga aaa cat gaa gac atc aat aat gct gat cag aag tcc 240
188 His Lys Lys Arg Lys His Glu Asp Ile Asn Asn Ala Asp Gln Lys Ser
189 65 70 75 80
191 cgg aag gtt tcc tcc atg gaa cct ggt gag caa ttg gag aag agt gga 288
192 Arg Lys Val Ser Ser Met Glu Pro Gly Glu Gln Leu Glu Lys Ser Gly
193 85 90 95
195 ctc tca gaa gag cat gga gct cct tgc ttt act cag aca gag cat ggc 336

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196	Leu	Ser	Glu	Glu	His	Gly	Ala	Pro	Cys	Phe	Thr	Gln	Thr	Glu	His	Gly	
197				100					105					110			
199	tct	cca	gag	agt	tca	cag	gac	agc	agc	aag	aga	aga	aag	gtt	gtg	tta	384
200	Ser	Pro	Glu	Ser	Ser	Gln	Asp	Ser	Ser	Lys	Arg	Arg	Lys	Val	Val	Leu	
201			115					120					125				
203	ccc	agt	cct	agc	caa	gct	aag	aat	ggc	aac	atc	ctt	cga	ata	aag	ata	432
204	Pro	Ser	Pro	Ser	Gln	Ala	Lys	Asn	Gly	Asn	Ile	Leu	Arg	Ile	Lys	Ile	
205			130				135					140					
207	aga	aga	gat	caa	gat	tct	tca	gct	tcc	ctt	tcg	gag	aaa	tct	aat	gtt	480
208	Arg	Arg	Asp	Gln	Asp	Ser	Ala	Ser	Leu	Ser	Glu	Lys	Ser	Asn	Val		
209	145					150				155						160	
211	gta	caa	aca	cca	gtt	cat	caa	atg	gga	tca	gtt	tca	tct	ctg	cca	agt	528
212	Val	Gln	Thr	Pro	Val	His	Gln	Met	Gly	Ser	Val	Ser	Ser	Leu	Pro	Ser	
213				165					170					175			
215	aag	aaa	aac	tca	atg	caa	cca	cac	aac	acc	gaa	atg	atg	gtg	aga	aca	576
216	Lys	Lys	Asn	Ser	Met	Gln	Pro	His	Asn	Thr	Glu	Met	Met	Val	Arg	Thr	
217			180						185					190			
219	gca	tca	acc	cag	cag	caa	agc	atc	aaa	ggc	gat	ttt	caa	gca	gta	ccg	624
220	Ala	Ser	Thr	Gln	Gln	Gln	Ser	Ile	Lys	Gly	Asp	Phe	Gln	Ala	Val	Pro	
221			195				200					205					
223	aaa	caa	ggc	atg	cca	acc	cca	gca	aaa	gtc	atg	cca	aga	gtc	gat	gtt	672
224	Lys	Gln	Gly	Met	Pro	Thr	Pro	Ala	Lys	Val	Met	Pro	Arg	Val	Asp	Val	
225		210				215					220						
227	cct	cca	tct	atg	agg	gca	tca	aag	gaa	agg	att	ggc	ctt	cgt	cct	gca	720
228	Pro	Pro	Ser	Met	Arg	Ala	Ser	Lys	Glu	Arg	Ile	Gly	Leu	Arg	Pro	Ala	
229	225			230							235				240		
231	gag	atg	ttg	gcc	aat	gtt	ggc	cct	tca	ccc	tcc	aag	gca	aaa	cag	att	768
232	Glu	Met	Leu	Ala	Asn	Val	Gly	Pro	Ser	Pro	Ser	Lys	Ala	Lys	Gln	Ile	
233				245					250					255			
235	gtc	aat	cct	gca	gct	gct	aag	gtt	aca	caa	aga	gtt	gat	cct	cca	cct	816
236	Val	Asn	Pro	Ala	Ala	Ala	Lys	Val	Thr	Gln	Arg	Val	Asp	Pro	Pro	Pro	
237			260				265					270					
239	gcc	aag	gca	tct	cag	aga	att	gat	cct	ctg	ttg	cca	tcc	aag	gtt	cat	864
240	Ala	Lys	Ala	Ser	Gln	Arg	Ile	Asp	Pro	Leu	Leu	Pro	Ser	Lys	Val	His	
241			275				280					285					
243	ata	gat	gct	act	cga	tct	ttt	acg	aag	gtc	tcc	cag	aca	gag	atc	aag	912
244	Ile	Asp	Ala	Thr	Arg	Ser	Phe	Thr	Lys	Val	Ser	Gln	Thr	Glu	Ile	Lys	
245		290				295					300						
247	ccg	gaa	gta	cag	ccc	cca	att	ctg	aag	gtg	cct	gtg	gct	atg	cct	acc	960
248	Pro	Glu	Val	Gln	Pro	Pro	Ile	Leu	Lys	Val	Pro	Val	Ala	Met	Pro	Thr	
249	305				310						315				320		
251	atc	aat	cgt	cag	cag	att	gac	acc	tcg	cag	ccc	aaa	gaa	gag	cct	tgc	1008
252	Ile	Asn	Arg	Gln	Gln	Ile	Asp	Thr	Ser	Gln	Pro	Lys	Glu	Glu	Pro	Cys	
253				325					330					335			
255	tcc	tct	ggc	agg	aat	gct	gaa	gct	gct	tca	gta	tca	gta	gag	aag	cag	1056
256	Ser	Ser	Gly	Arg	Asn	Ala	Glu	Ala	Ala	Ser	Val	Ser	Val	Glu	Lys	Gln	
257			340				345					350					
259	tcc	aag	tca	gat	cgc	aaa	aag	agc	cgc	aag	gct	gag	aag	aaa	gag	aag	1104
260	Ser	Lys	Ser	Asp	Arg	Lys	Lys	Ser	Arg	Lys	Ala	Glu	Lys	Lys	Glu	Lys	

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/079,042

DATE: 03/14/2002

TIME: 13:49:55

Input Set : A:\Pto.amc

Output Set: N:\CRF3\03142002\J079042.raw

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263 aag ttc aaa gat tta ttt gtt acc tgg gat cct ccg tct atg gaa atg      1152
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265          370          375          380
267 gat gat atg gat ctc ggg gac cag gat tgg ctg ctt gat agt acg agg      1200
268 Asp Asp Met Asp Leu Gly Asp Gln Asp Trp Leu Leu Asp Ser Thr Arg
269 385          390          395          400
271 aaa cct gat gct ggc att ggc aac tgc aga gaa att gtt gat cca ctt      1248
272 Lys Pro Asp Ala Gly Ile Gly Asn Cys Arg Glu Ile Val Asp Pro Leu
273          405          410          415
275 act tct caa tca gca gag cag ttc tca ttg cag cct agg gcg att cat      1296
276 Thr Ser Gln Ser Ala Glu Gln Phe Ser Leu Gln Pro Arg Ala Ile His
277          420          425          430
279 tta cca gac ctt cat gtc tat cag ttg cca tat gtg gtt cca ttc tag      1344
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288 <212> TYPE: PRT
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300 Val Val Ala Val Ala Ala Ala Glu Ala Gln Ala Thr Thr Lys Leu Gln
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304 Lys Glu Arg Glu Lys Ala Glu Lys Lys Lys Glu Lys Arg Ser Asp Arg
305          35          40          45
308 Lys Ala Leu Pro His Gly Glu Ile Ser Lys His Ser Lys Arg Thr His
309          50          55          60
312 His Lys Lys Arg Lys His Glu Asp Ile Asn Asn Ala Asp Gln Lys Ser
313 65          70          75          80
316 Arg Lys Val Ser Ser Met Glu Pro Gly Glu Gln Leu Glu Lys Ser Gly
317          85          90          95
320 Leu Ser Glu Glu His Gly Ala Pro Cys Phe Thr Gln Thr Glu His Gly
321          100          105          110
324 Ser Pro Glu Ser Ser Gln Asp Ser Ser Lys Arg Arg Lys Val Val Leu
325          115          120          125
328 Pro Ser Pro Ser Gln Ala Lys Asn Gly Asn Ile Leu Arg Ile Lys Ile
329          130          135          140
332 Arg Arg Asp Gln Asp Ser Ser Ala Ser Leu Ser Glu Lys Ser Asn Val
333 145          150          155          160
336 Val Gln Thr Pro Val His Gln Met Gly Ser Val Ser Ser Leu Pro Ser
337          165          170          175
340 Lys Lys Asn Ser Met Gln Pro His Asn Thr Glu Met Met Val Arg Thr
341          180          185          190
344 Ala Ser Thr Gln Gln Gln Ser Ile Lys Gly Asp Phe Gln Ala Val Pro
345          195          200          205
348 Lys Gln Gly Met Pro Thr Pro Ala Lys Val Met Pro Arg Val Asp Val
349          210          215          220

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/079,042

DATE: 03/14/2002

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Input Set : A:\Pto.amc

Output Set: N:\CRF3\03142002\J079042.raw

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353 225                230                235                240
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361                260                265                270
364 Ala Lys Ala Ser Gln Arg Ile Asp Pro Leu Leu Pro Ser Lys Val His
365                275                280                285
368 Ile Asp Ala Thr Arg Ser Phe Thr Lys Val Ser Gln Thr Glu Ile Lys
369                290                295                300
372 Pro Glu Val Gln Pro Pro Ile Leu Lys Val Pro Val Ala Met Pro Thr
373 305                310                315                320
376 Ile Asn Arg Gln Gln Ile Asp Thr Ser Gln Pro Lys Glu Glu Pro Cys
377                325                330                335
380 Ser Ser Gly Arg Asn Ala Glu Ala Ala Ser Val Ser Val Glu Lys Gln
381                340                345                350
384 Ser Lys Ser Asp Arg Lys Lys Ser Arg Lys Ala Glu Lys Lys Glu Lys
385                355                360                365
388 Lys Phe Lys Asp Leu Phe Val Thr Trp Asp Pro Pro Ser Met Glu Met
389                370                375                380
392 Asp Asp Met Asp Leu Gly Asp Gln Asp Trp Leu Leu Asp Ser Thr Arg
393 385                390                395                400
396 Lys Pro Asp Ala Gly Ile Gly Asn Cys Arg Glu Ile Val Asp Pro Leu
397                405                410                415
400 Thr Ser Gln Ser Ala Glu Gln Phe Ser Leu Gln Pro Arg Ala Ile His
401                420                425                430
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405                435                440                445
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412 <212> TYPE: DNA
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421 ccgccggggt acgtgcgaaa cccagtgggt gccgtggccg cggccgaagc gcaggcgacc      120
423 actaag                                           126
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428 <211> LENGTH: 1344
430 <212> TYPE: DNA
432 <213> ORGANISM: Oryza sativa cv. Nipponbare
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438 <221> NAME/KEY: CDS
440 <222> LOCATION: (1)..(1344)
442 <223> OTHER INFORMATION:
446 <400> SEQUENCE: 5
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449 1                5                10                15
451 gtg gtg gcc gtg gcc gcg gcc gaa gcg cag gcg acc act aag ctc cag      96

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/079,042

DATE: 03/14/2002
TIME: 13:49:56

Input Set : A:\Pto.amc
Output Set: N:\CRF3\03142002\J079042.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:17; N Pos. 1950,2032
Seq#:18; N Pos. 889,971
Seq#:18; Xaa Pos. 297,324
Seq#:19; Xaa Pos. 297,324
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Seq#:21; Xaa Pos. 1,2,3,4,5
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Seq#:56; Xaa Pos. 234
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Seq#:78; N Pos. 52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71
Seq#:78; N Pos. 72,73,74,75,76,77,78,79,80,81
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Seq#:79; Xaa Pos. 18,19,20,21,22,23,24,25,26,27
Seq#:82; Xaa Pos. 420
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Seq#:89; N Pos. 1240,1254,1262,1272,1285,1287,1301,1310,1324,1333,1345,1352
Seq#:89; N Pos. 1353,1360,1372,1384,1397

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 9



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5 <110> APPLICANT: Messier, Walter
 9 <120> TITLE OF INVENTION: Methods to Identify Evolutionarily Significant Changes in Polynucleotide
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 32 <151> PRIOR FILING DATE: 1999-08-03
 36 <150> PRIOR APPLICATION NUMBER: US 09/875,666
 38 <151> PRIOR FILING DATE: 2001-06-06
 42 <150> PRIOR APPLICATION NUMBER: US 60/315,595
 44 <151> PRIOR FILING DATE: 2001-08-29
 48 <160> NUMBER OF SEQ ID NOS: 91
 52 <170> SOFTWARE: PatentIn version 3.1

Does Not Comply
 Corrected Diskette Needed

ERRORED SEQUENCES

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 9172 <211> LENGTH: 2157
 9174 <212> TYPE: DNA
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 9185 aaaagtctga tctggaaggt tcgaattaca tttctatata ttgttggtgt cccagacgat 180
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P2

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/079,042

DATE: 03/14/2002

TIME: 13:41:25

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Output Set: N:\CRF3\03142002\J079042.raw

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VERIFICATION SUMMARY

DATE: 03/14/2002

PATENT APPLICATION: US/10/079,042

TIME: 13:41:26

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Output Set: N:\CRF3\03142002\J079042.raw

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